§4. TELNET Atomic Databases on the Internet: What's Next?

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Only 3-4 years ago the Internet was used practically only for e-mail correspondence. Since then the exploding development of Internet tools, mainly of the World-Wide Web (WWW), has utterly changed the methods of scientific information exchange. Though unlike astro- or high-energy physicists, the atomic and plasma community have not paid enough attention to utilization of those new opportunities in practical work, the situation with proliferation of atomic data on the Internet rapidly changes to better.

Currently we are familiar with about two dozen atomic databases and data collections which could be freely accessed on the Internet. Those are quite different in amount and variety of atomic data, interface, access methods, etc. The detailed description of available databases can be found in [1]. The most extensive and developed databases include NIFS database (telnet://msp.nifs.ac.jp), the TOPbase of Opacity Project [2] (http://cdsarc.u-strasbg.fr/OP.html), and the IAEA Atomic and Molecular Data Information System (telnet:// aladdin@ripcrs01.iaea.or.at). Unlike the newest databases which use exclusively the World-Wide Web environment, all these three databases use interfaces based on TELNET. As a consequence, a user should firstly look through many-page manuals in order to work with these databases. There are also some extra limitations which are unknown for the WWW databases. Moreover, the World-Wide Web has many advantages such as, e.g., user-friendly and clear interface, support of various text formats, tables, and graphics, free availability of client software for educational, academic and governmental organizations, the same interfaces for different operating systems, etc. All this, to our mind, makes the creation of the WWW interface for TELNET-based atomic databases not only desirable but inevitable. An important point is that such an interface can be made as an addition, not replacement, to already existing TELNET-based interface. For example, instead of the USER - TELNET - DATABASE scheme, the USER - WWW - TRANSFORMING CODE - TELNET - DATABASE combination may be used.

References

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2. Seaton M. J.Phys.B. **20,** 6363 (1987).